TYCHO BRAHE'S FACTS OF LIFE

BY

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When Tycho Brahe had been dead for almost half a century, Pierre Gassendi of the Collège de France, the scourge of Descartes and the reviver of epicurean atomism, decided to write his life. Gassendi assembled all the published works of Tycho and inquired of Ludwig Kepler concerning Tycho's manuscripts. Then Gassendi had his friend, La Peyrère, who had once been to Denmark on a diplomatic mission, write to Olaus Worm. The letter was dated October 6, 1647. Could Olaus Worm help by sending information from the homeland of the great astronomer?

Olaus Worm was Denmark's most famous savant in the middle of the seventeenth century. He was also a brother-in-law to Christian Longomontanus, who had once been Tycho's favorite disciple. Now this letter came from France. There was much to tell, to be sure, but . . . if only La Peyrère had written sooner! "If my lord Longomontanus were still alive," wrote Olaus Worm to La Peyrère on October 13, 1647, "no doubt he could have told a great deal about Tycho, with whom he was on closest terms for many years. He died on the 8th." 2)

Pierre Gassendi was thus denied by less than a week the spice of old Longomontanus' anecdotes concerning Tycho. Olaus Worm proved to be very helpful nonetheless. Indeed, he deluged Paris with Tychoniana from the North. Cort Aslaksen's edition of Tycho Brahe's Copenhagen lectures, Philip Tomasini's eulogy, a list of thirty-two former disciples of Tycho, the original Tychonic manuscripts in the possession of Professor Jørgen From of Copenhagen, even some Latin epigrams from Tycho's own hand—all of these were either mentioned or actually included in Worm's very first reply to La Peyrère. Worm went on to commend himself to Gassendi, and soon the two of them were corresponding directly. Their correspondence is in print, and it shows that Pierre Gassendi

learned a great deal of what he knew about Tycho Brahe through his connection with Olaus Worm.³) The biography which resulted was not quite a collaborative work, perhaps, for Gassendi wrote it by himself, but without Olaus Worm, the book would have had little to build upon beyond Tycho's published writings. Almost all the information from oral and other unpublished sources, and much from miscellaneous printed sources, came to Gassendi through Olaus Worm.

Olaus Worm was a tremendous letter writer.4) He maintained a vast correspondence with scholars and others throughout Europe, from Iceland to Italy, from France to Sweden. It was by means of this correspondence that he collected much of the Tychoniana which he sent to Gassendi. Of course most of Olaus Worm's correspondents were his own countrymen, and among them, one of the most constant was his dear friend, Stephan Johannis Stephanius, Historiographer Royal of Denmark and professor of history at Sorø Academy. Any scholar who has worked with seventeenth century Danish sources will remember Stephan Johannis for his beautiful and lucid italic hand when writing Latin. Many of his letters are still preserved in the Royal Library in Copenhagen,⁵) and reproductions of his hand appear in various books 6) and here p. 25. But Stephan Johannis is remembered to history not so much for his penmanship as for his splendid library and for his scholarly edition of Saxo Grammaticus.⁷) Students of Tycho Brahe will also remember him as the son of Johannes Stephanius, a scholar and administrator of some fame who began his career as a disciple of Tycho Brahe on Hven.⁸)

Stephan Johannis and Olaus Worm were frequent correspondents. In one letter, Olaus Worm mentioned that the French philosopher, Gassendi, was writing a biography of Tycho Brahe and would be grateful for source materials. In reply on May 3, 1648, Stephan Johannis wrote to Olaus Worm a letter which read in part as follows: "... Since returning home recently, I have had nothing which was more important to do than what I recall having promised: that I should examine my papers carefully to see if anything turned up concerning the life of the most distinguished Tycho Brahe, and pass it on to you. Therefore I present these few things which have now come to light: forsooth, 1. Some annotated manuscripts from the annals of my father, who was one of Tycho's constant associates, 2. Excerpts from the writings of Philip Tomasini and the letters of Baptistus Laurus, 3. The funeral oration of Johannes Jessenius, which I expressly wish returned to me. . . . "9)

This letter is quoted in translation from the printed edition of Olaus Worm's correspondence. The original may have been discarded when the printer was through with it. But the first enclosure, which was not printed along with the letter, has been preserved. It is in the Royal Library in Copenhagen, in Langebeks Excerpter 179, folio, a great thick packet of excerpts, notes, documents and other papers concerning Tycho Brahe, gathered together and packed away around the middle of the eighteenth century. The document in question is a single sheet of paper folded to make two leaves, $8^{1/2}$ inches high and $6^{1/2}$ inches wide. The unnumbered pages will be referred to as 1r, 1v, 2r, 2v. The text is on the first three pages and consists of notes concerning Tycho Brahe.

There are four discrete parts to the text. (i) A list of positive biographical data on Tycho, ascribed to Johannes Stephanius but written in the hand of Stephan Johannis. (ii) A note of Johannes Stephanius concerning the periods of time he spent with Tycho Brahe, also in the hand of his son, Stephan Johannis. (iii) Some Tychonic biographical data in the hand of Olaus Worm, abstracted from Johannes Jessenius's funeral sermon. (iv) A transcription of Tycho Brahe's letter to Hans Aalborg, written in the hand of Stephan Johannis. (ii)

This document, then, was written in the spring of 1648. Its origin may be reconstructed as follows. Stephan Johannis received a letter from Olaus Worm, asking for information about Tycho Brahe which could be sent to Gassendi. Stephan Johannis then rummaged around in the papers of his father, Tycho's former disciple, and came up with the letter to Hans Aalborg or a copy of it, together with Johannes Stephanius's biographical note on Tycho Brahe and Johannes Stephanius's note concerning his own residence on Hven. Stephan Johannis then wrote these three discrete items upon a single sheet of paper and sent them to OlausWorm as an enclosure to the letter dated May 3, 1648. A copy of Johannes Jessenius's funeral oration was also enclosed with the letter. When Olaus Worm received the letter, he abstracted the relevant data from Jessenius's oration and presumably returned the oration to Stephan Johannis as requested. Then Worm copied out all the information in this document and sent it to Gassendi, keeping the original document among his papers. From there, the document came into the hands of Jacob Langebek a century later, and so to its present location in the Royal Library.

The Tychonic notes of Johannes Stephanius are especially interesting because they contain basic information about Tycho Brahe's life which cannot be found elsewhere. Since Gassendi's day, they have indeed been the factual skeleton supporting every study of Tycho's early life. Consequently a sound evaluation of these notes is basic to Tychonic scholarship. First we must have the text. Parts (i) and (ii) of the present document, which is not printed in Dreyer's edition of Tycho Brahe's Opera omnia, 12) read as follows:

(11) From the MS. Annals of my late Father, M. Johannes Stephanius.

Tycho Brahe Ottesen, a man of noble family, excelling in a variety of scientific studies, and easily the chief mathematician of his generation, was born December 14, 10:47 a.m., in the year of our Lord 1546, under the elevation of the pole 56°.

He came to Copenhagen to study on April 19, 1559. He left Copenhagen on February 14, 1562. He came to Leipzig on March 24, 1562. He left Leipzig on May 17, 1565. He came to Rostock on May 25, 1565. Returned to Wittenberg on April 15, 1566, from his fatherland. Leaving there September 16, he came to Rostock September 24, fleeing on account of the plague.

In the year 1566 on December 10, his dispute first arose with Manderup Parsberg concerning the movements of the stars, when both were present at a betrothal in (Lucas) Bachmeister's residence. It was resumed on the 27th on the occasion of the Christmas festivities; finally, on the 29th, it came to a duel. In this conflict, Manderup inflicted a serious wound on Tycho's nose. Thus he lost almost the whole front of his nose, part of which was utterly cut off. This happened about 7 o'clock in the evening in thick darkness.

In the year of our Lord 1574, at 9:30 a.m., Tycho's daughter, Magdalena, was born in Copenhagen.

In the same year, towards the end of the year, having given (IV) a lecture concerning mathematical disciplines, Tycho Brahe undertook mathematical lectures at the University in Copenhagen, which later in 1610 were published in Copenhagen, the study and work of Dr. Cort Aslaksen from Bergen, etc., a most learned lecture.

In 1581, 6:40 p.m. on August 28, Tycho Brahe's son Tycho was born. In 1583, 6:14 p.m. under the elevation of the pole 56°, Tycho Brahe's son George (Jørgen) was born.

M. Johannes Stephanius concerning his journey to the island of Hven.

In 1582 on February 1, having set forth from Copenhagen, I came to Uraniborg on the island of Hven to Tycho Brahe Ottesen, a noble

On the facing page: The first page (leaf 1 recto) of the Latin notes concerning Tycho Brahe, extracted by Stephan Stephanius from the lost annals of his father, Johannes Stephanius. Langebek's Excerpts 179, 2° (Royal Library). Original size.

Ex Annalibis MS. Tu paxapilus Parentis mei, M. Johannis Ste,, pranii.

Tycho Brase Ott bonides, Vir Nobilitate generis, et variarum rerum scientia excellens, et Mathematicu,, vim sui seculi facili princeps, natus est, die 14 Decembri H. 10 . M. 47 . AM . Anno Christi 1546 . sub elevatione Poli 56.0.

Hafniam venit stridiorum gratia 1559 Die 19 April. Hafnia discessit 1562 Die 14 Febr.

Lipnam venit 1562. Die 24 Martie.

Lipsia discessit 1565. Die 17 Maji.

Rostochim venit 1565 Die 25 Maji:

Rediit Witchergam 1566 Die 15 April.

unde discedens 16 Septembr. die # 24 Septembr. Rostochium venit, aufnigiens propter pestem.

Anno 1566, die 10 Decembr. orta sint primim ini, micitia ipsi cum Mandrupio Pasbery, propter e boream, cum uterque adesset Sponsabibus in adibus Bachmeisten. ovæ renovatæ die 27, per occasionem lädi, in fenis Klativitatis Christi, sint; adeo ut die zg ad arma ventim sit. In goo conflicti grande vulnis in naso ipri Mandripins inflicit. Unde fore tota anterior Nasi pars prorsus resecta perist. Accidit bre circa Hor . 7 . vespertinam in densis tenchis .

Anno Chist 1574 Hor. 92 AM. Magdalena Tychonis filia nascitir Hafnia. Kodem Anno, sob finem Anni, babita de Disciplinis and erudite man and easily the chief of all mathematicians of his age. Departing from there to Copenhagen, I returned on April 17 of the same year.

In 1583 on December 5, I came again to Tycho Brahe at Uraniborg on the island of Hven. Departing from there, I returned to Copenhagen on October 15 of the year following, 1584.

In order to evaluate the reliability of these notes as historical evidence, it is necessary to turn from the present document to a consideration of its source. This source, as the present document informs us, was to be found amongst the papers of Johannes Stephanius. Now we also know, on the evidence of the present document, that Johannes Stephanius was with Tycho Brahe during the spring of 1582 and practically the whole of the year 1584. These Tychonic notes of his are a chronicle of Tycho's life until the year 1583. They contain reference to nothing that happened after Johannes Stephanius left Hven, although they do mention the printed edition (Copenhagen 1610) of Tycho's lectures at the University of Copenhagen in 1574.¹³) Thus internal evidence indicates that the source of which this present document is a copy was written around 1584, when the author, Johannes Stephanius, was serving Tycho Brahe on Hven.

The sort of positive information in this present document is not the kind that people carry around in their heads, however, and it is unlikely that Johannes Stephanius got it directly from Tycho's dictation. The data in this present document certainly came from a written, not an oral, source. Yet that source is not to be found in all the fourteen volumes of documents printed in Dreyer's edition of the Tychonic Opera omnia, nor does it come from a source printed in another place. Consequently it must have come from a written source or sources now lost, or at least not in print.

The very nature of the data indicates that the source was Tycho Brahe's horoscope of himself, which is now lost, but is quoted by Gassendi. Two independent bits of evidence lend credence to this conclusion. The first is the exact agreement on the moment of Tycho's birth in the present document and in Gassendi's citation of Tycho's horoscope. The second is the extended discussion of Tycho's duel with Manderup Parsberg which, as Gassendi tells us—again on the evidence of Tycho's horoscope—Tycho considered to have been a fateful event predetermined by the stars.¹⁴)

In short, this present document is a copy by Stephan Johannis of an abstract by Johannes Stephanius of information from the papers, most

likely the horoscope, of Tycho Brahe. Both father and son were painstaking men who checked all their work assiduously, and the present document may be taken as a fully trustworthy source of information on the life of Tycho Brahe. It is the very next thing to a document in M. Johannes Stephanius concerning his journey to the island of Hven. Tycho's own hand—and even easier to read.¹⁵)

NOTES

- (1) Isaac de La Peyrère to Olaus Worm, 6 Oct 1647, Olai Wormii et ad eum doctorum virorum epistolæ (Copenhagen 1751), vol. II, pp. 947-49, Danish edition (see note 4) no. 1540. The dating is New Style, the Danish dates in the following are Old Style. See also "Samlung verschiedener Briefe und Nachrichten, welche des berühmten Mathematici TYCHONIS BRAHE Leben, Schriften und Schicksale betreffen, und theils von ihm selbst, theils aber von andern verfasset sind," Dänische Bibliothec oder Sammlung Von Alten und Neuen Gelehrten Sachen aus Dännemarck, vol. IX (Copenhagen 1747), p. 272. Norlind follows Dreyer in confusing La Peyrère with Fabri de Peiresc, who died in Gassendi's arms some years before, see Wilhelm Norlind, Tycho Brahe. Mannen och verket. Efter Gassendi översatt med kommentar (Lund 1951), p. xiv. - (2) Worm to La Peyrère, 13 Oct 1647, Olai Wormii epistolæ, vol. II, pp. 949-50, also Dänische Bibliothec, vol. IX, pp. 272-73. Danish ed. no. 1545. – (3) Among the manuscripts of the Royal Library in Copenhagen, Gl. Kgl. Samling 3119d, 4°, "Wormiana," is an undated letter of Gassendi to Worm (Danish ed. no. 1580) which is full of specific questions about Tycho Brahe, Hven, the whereabouts of Tycho's instruments, and the like, and further reveals the extent to which Gassendi leaned upon Worm for information. For Gassendi's letters, see Olai Wormii epistolæ, vol. I, 285 and 287, and vol. II, 947-57 and 1029-36, Danish ed. vol. III, index p. 579. The Latin work gives the texts of the letters Worm actually received and there are many variations from the versions printed in Gassendi's epistolæ. See also Dänische Bibliothec, vol. IX, 272-80. There are two editions of Gassendi's complete works, Lyons 1658 and Florence 1728, and in both editions, volume six is Petri Gassendi epistolæ. In the Florentine edition, see vol. VI, 292-93, 295, 479-80, 487 and 538-39. - (4) A new Danish edition of his correspondence has recently been completed, translated by H.D. Schepelern with assistance of Holger Friis Johansen, Breve fra og til Ole Worm, vols. I-III, containing 1796 (+ 3) letters from 1607-1654 and was published in Copenhagen 1965-68. - (5) For example in Gl. Kgl. Saml. 3119d, 4°, and Gl. Kgl. Saml., 117, folio, both entitled, "Breve til Ole Worm." - (6) Among others, Ellen Jørgensen, Danske Historikere fra Saxo til Kr. Erslev (Copenhagen 1923), plate 10; Olaus Worm's hand appears on plate 9. See also note 7.
- (7) R. Paulli, "Stephanus Johannis Stephanius," Dansk biografisk Leksikon, vol. XXII (Copenhagen 1942), pp. 579-82; Ellen Jørgensen, "Stephanus Johannis Stephanii manuskriptsamling," Nordisk tidskrift för bok- och biblioteksväsen, vol. IV (1917),

pp. 19-28. O.Walde, "Stephanii bibliotek och dess historia," Nordisk tidskrift för bokoch biblioteksväsen, vol. IV (1919), pp. 29-65 and 261-301; Lauritz Nielsen, Danske Privatbiblioteker gennem Tiderne (Copenhagen 1946), pp. 173-89; Stephan Johannis's hand may be seen in the photographic plates on pp. 184 and 186. - (8) Bjørn Kornerup, "Johannes Stephanius," Dansk biografisk Leksikon, vol. XXII (1942), pp. 577-79. (9) Olai Wormii epistolæ, vol. I, p. 285, Danish ed. no. 1582. Rolfe A. Haatvedt kindly helped with the translation. - (10) De vita et morte illustris et generosi viri, domini Tychonis Brahæi.... Oratio Fvnebris Iohan. Iessenii a Iessen (Prague 1601). This sermon has been reprinted many times, most recently in I.L.E. Dreyer, ed., Tychonis Brahe Opera omnia, vol. XIV (Copenhagen 1928), pp. 234-40. - (11) Printed in Tychonis Brahe Opera omnia, vol. VII (1924), p. 3. - (12) Jacob Langebek printed this document twice without the slightest remark either time concerning its provenience or reliability. The first time was in Dänische Bibliothec, vol. IX, pp. 261-64. The second time was in the form of scattered references in the footnotes to his collection, "En Skue-Penge, med endeel meest utrykte Efterretninger, om Tyge Brahe," Danske Magazin, vol. II (Copenhagen 1746), pp. 172, 173, 174 passim. Rolfe A. Haatvedt kindly helped with this present translation. - (13) Stephan Johannis presumably added the reference to the 1610 edition of Tycho's lectures. - (14) Norlind, Tycho Brahe efter Gassendi, pp. 4 and 10. - (15) The author gratefully acknowledges the support given to his studies of Tycho Brahe by the U.S. Department of Health, Education and Welfare through two National Defense Foreign Language Fellowships, by the Danish Government through a study grant offered under the auspices of the Institute of International Education, by the University of South Dakota through faculty research grants, a travel grant, and a faculty research fellowship, and by the National Endowment for the Humanities through a summer stipend. He is also grateful for The American-Scandinavian Foundation's kind encouragement of his work.